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10/564,117	01/10/2006	Marcus Guzmán	102792-513(11289P4 US)	8881
27380	7590	04/02/2008		
NORRIS, MCLAUGHLIN & MARCUS			EXAMINER	
875 THIRD AVE			JACOBSON, MICHELE LYNN	
18TH FLOOR				
NEW YORK, NY 10022			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			04/02/2008 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,117

Applicant(s)

GUZMANN ET AL.

Examiner

MICHELE JACOBSON

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 9, 10, 12-22, 24-27, 29-31, 33, 34 and 36 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) ____ is/are allowed.

- 6) ☒ Claim(s) 1-5, 7, 9, 10, 12-22, 24-27, 29-31, 33, 34 and 36 is/are rejected.

- 7) ☐ Claim(s) ____ is/are objected to.

- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-846)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/10/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Drawings

1. The drawings are objected to because Figure 4 contains reference number **36** which is not referred to in the text. The examiner believes this to be a typo and that the correct reference number for the figure should be **3b**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 33 is objected to because of the following informalities: Claim 29 recites "a portion of the composition is sealed by a first component of the closure and a second *potion*". The examiner believes applicant likely meant the word "portion" to be portion. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 33 recites the limitation "a second portion of the closure". There is insufficient antecedent basis for this limitation in the claim. Neither claim 1 nor claim 25 from which claim 33 depend recite the closure having a second portion. The examiner believes applicant likely meant the recitation of a "second portion of the closure" to be "a second component of the closure" and for the purpose of examination the claim will be interpreted as such. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7, 9, 10, 12, 19-22, 25-27, 29, 30, 33, 34 and 36 are rejected under 35 U.S.C. 102(b) as anticipated by Speed et al. U.S. Patent Application Publication No. 2002/0187910 (hereafter referred to as Speed).

7. Speed teaches an automatic laundry or dishwashing product in a unit dose that has three distinct trigger zones each containing a different chemical composition for release during 3 distinct stages of the washing cycle. (Para. 14) A typical wash cycle is recited to comprise a pre-wash cycle (typically cold water), a main-wash cycle that starts cold and heats up to about 55°-65° C, two or more rinse cycles with cold water before a final rinse cycle that starts out cold and heats up to about 65°-75° C. (Para. 13) The composition released during the main wash cycle provides a wash liquor pH of about 10 or above, the composition released during the first rinse cycle provides a wash liquor pH from about 8 to about 9.5 and the composition released during the final rinse provides a wash liquor pH of about 5 or below. (Para. 17)

8. The delivery of different compositions in different cycles can be achieved by including physical, chemical or mechanical trigger-means for releasing the main wash, first rinse cycle and rinse cycle compositions. (Para. 25) The trigger means are each responsive to one or more of temperature, pH, redox potential, ionic concentration, enzymatic reaction or time. (Para. 25) The main wash cycle trigger zone can be comprised of a pH sensitive material that is insoluble at high pH (above 10) and soluble below pH=9. (Para. 36) The compositions for the different wash cycles can be

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contained in a pouch, capsule, tablet or compact and the triggers can be in the form of a film or capsule wall and may be formed by vacuum forming, thermo-forming or a combination of both. (Para. 33,95)

9. The trigger for the main wash cycle is recited to be temperature dependent and comprised of warm water soluble polyvinyl alcohols. (Para. 83, 86) A trigger layer that is warm water soluble solves the problem of gelling when handling the product of the invention with wet hands. (Para. 84)

10. The trigger means for the first rinse cycle is recited to either be reverse temperature dependent or pH dependent. (Para. 87, 36) The trigger means for the first rinse cycle is recited to be protected by a priming trigger. (Para. 87) The function of priming trigger is to protect the composition for the first rinse cycle from being released during the cold water portion of the main wash cycle. The water that initially floods the washer is cold and since the main wash composition has not full dissolved in it has a pH lower than 10. If the secondary trigger which is a composition that is either cold water or pH lower than 10 soluble were exposed to the initial water of the main wash cycle, the composition for the first rinse cycle would be prematurely released. Suitable compositions for the priming trigger are recited to be polyvinyl alcohols and substances having a melting range between 40°-70° C such as natural and synthetic waxes and paraffin.

11. The trigger means for the final rinse cycle preferably selected such that it has a higher trigger temperature than the priming trigger means for the first rinse cycle. (Para.

93) Preferably these substances have a melting range between about 50°-75° C and are activated by the high temperature of the water during the final rinse cycle.

12. Applicant specifically recites in the specification that "where the term bottle is used it is understood that any container which has a dispersing aperture is intended."

Since the limitation of a bottle recited in claim 1 can be broadly interpreted to include any container with a closure, it is the examiner's opinion that the capsule recited in Speed meets the limitation of a bottle. As such, the capsule recited by Speed comprised of 3 separate compartments each sealed by a film that has a different mechanism of dispersion including melting, water solubility and pH sensitivity anticipates the limitations set forth in claims 1, 3, 7, 9, 25, 26, 29, 30, 33, 34 and 36.

The recitation of polyvinyl alcohol as the water soluble trigger anticipates claim 10.

13. The trigger means for the first rinse cycle comprised of a layer of wax as the priming trigger (first component) on top of a layer of pH sensitive polymer that is soluble at pH<9 (second component) anticipates the limitations set forth in claims 2, 4, 5, 12, 19 and 21.

14. Since the capsule recited by Speed is interpreted to approximate a container capable of being closed and since the films recited by Speed are disposed within the capsule and upon their dispersion dispense compositions, the layers disclosed by Speed can be said to be disposed within or adjacent to a dispensing aperture of the bottle as claimed in claims 20, 22 and 27. Since Speed also discloses that the films of the invention are for dispensation of different compounds the film for the main wash cycle would be disposed at the top of the bottle for dispensing first and the film for the

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first rinse cycle would be disposed lower down the capsule since it is dispersed second as claimed in claim 22.

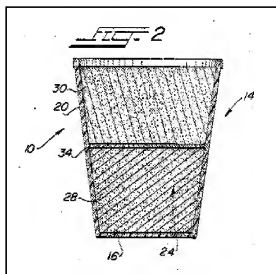
Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1-5, 7, 9, 10, 12, 19-22, 25-27, 29, 30, 33, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginn U.S. Patent No. 4,588,080 (hereafter referred to as Ginn) and Speed et al. U.S. Patent Application Publication No. 2002/0187910 (hereafter referred to as Speed).

17. Ginn teaches a composite unitary packet including as distinct components a detergent or washing composition and a fabric treating composition and in which the several different components are released in a predetermined, controlled sequence, (Col. 1, lines 9-14) In a preferred embodiment of the invention the packet consists of a plug-



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like, multi-layer laminate bonded to or otherwise sealed contiguously against the base and to a circumscribing bounding wall of a plastic, cup-like receptacle. In the physical arrangement described, initial access of washing solution to the laminate is limited to an exposed top surface only of an uppermost layer of the laminate. (Col. 2, lines 49-56)

18. Ginn is silent regarding disposing barrier compounds between the layers of cleaning compounds in the container recited.

19. Speed teaches what has been recited above.

20. Both Ginn and Speed are directed towards means for providing single unit capsules of washing liquids for automatic washing machines that remove the need for adding different washing compositions manually during different wash cycles. The motivation to combine Ginn and Speed would have been to increase the number of different detergent compositions that could be used in Ginn beyond those that can be dissolved in a time controlled manner. Using the compositions of Speed as separator layers in Ginn would have been obvious to one of ordinary skill in the art who desired to make a container capable of releasing different detergent compositions during the appropriate dishwashing cycles.

21. In the event that the recitation of a bottle in the independent claims is restricted to a structure more narrowly interpreted than above, it is the examiner's opinion that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed the layers recited by Speed within the container for a washing machine as recited by Ginn to obtain the advantage of not being restricted to time-dependent dissolution of the cleaning compound as in Ginn. This combination

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would produce the invention as claimed in claims 1-5, 7, 9, 10, 12, 19-22, 25-27, 29, 30, 33, 34 and 36.

22. Claims 13-18 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginn U.S. Patent No. 4,588,080 (hereafter referred to as Ginn) and Waeschenbach et al. WO 00/06688, U.S. Patent No. 6,800,598 used herein for reference (hereafter referred to as Waeschenbach).

23. Ginn teaches what has been recited above but is silent regarding disposing barrier compounds between the layers of cleaning compounds in the container recited.

24. Waeschenbach teaches "in a preferred embodiment of the invention the envelope incorporates at least one compound which for the concentration of the specific compound at the end of the main cleaning cycle of the dishwashing machine is not or is only slightly soluble and at the concentration of the specific compound in the clear rinsing cycle has such an adequate solubility that in the clear rinsing cycle it is so substantially dissolved or detached from the core or cores that an at least partial escape of the core material into the clear rinsing cycle medium is possible.

Preferably the solubility of the compound increases with decreasing OH^- ionic concentration and therefore decreasing pH-value in the surrounding medium.

In particularly preferred manner the compound at a pH-value above 10 has little or no solubility and at a pH-value below 9 has an adequate solubility to ensure a substantially complete dissolving or detachment from the core or cores in the clear rinsing cycle, so that an at least partial escape of the core material into the clear rinsing cycle medium is possible.

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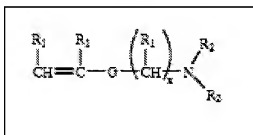
Preferably the compound incorporates a polymer, preferably a pH-sensitive polymer, which comprises at least one repeat unit, which has at least one basic function, which is not part of the polymer backbone chain.

In a preferred embodiment the polymer comprises at least one repeat unit, which is based on a compound selected from the group comprising vinyl alcohol derivatives, acrylates or alkyl acrylates, which have said basic function.

According to the invention the polymer is a carbohydrate functionalized with said basic function.

The aforementioned basic function is preferably an amine and in particularly preferred form a secondary or tertiary amine.

In a preferred alternative the repeat unit is based on a compound with the following formula III:

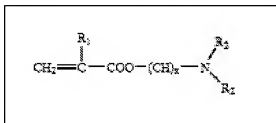


in which G is a linking group selected from $-\text{COO}-$, $-\text{OCO}-$, $-\text{CONH}-$, $\text{NHCO}-$, $-\text{NHCONH}-$, $-\text{NHCOO}-$, $-\text{OCONH}-$ or $-\text{OCOO}-$, R_1 , independently of one another, is hydrogen or an alkyl group with 1 to 3 carbon atoms, R_2 independently of

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one another, hydrogen or an alkyl group with 1 to 5 carbon atoms and x is an integer from 1 to 6.

Preferably the repeat unit is based on a compound with the following formula IV:



in which R_1 , independently of one another, is hydrogen or an alkyl group with 1 to 3 carbon atoms, R_2 , independently of one another, is hydrogen or an alkyl group with 1 to 5 carbon atoms and x is an integer from 1 to 6.

Preferably the core or at least part of the cores has a melting point of more than 35°C ., preferably between 55 and 70°C .

The invention also relates to a process for performing a dishwashing cycle in a dishwashing machine, where the composition according to the invention is added at an appropriate time during the pre-rinsing cycle or main cleaning cycle to the medium in the dishwashing machine. " (Col. 5 line 15-Col. 6, line 33)

25. Both Ginn and Waeschenbach are directed towards means for providing single unit capsules of washing liquids for automatic washing machines that remove the need for adding different washing compositions manually during different wash cycles. The motivation to combine Ginn and Waeschenbach would have been to increase the number of different detergent compositions that could be used in Ginn beyond those

that can be dissolved in a time controlled manner. Using the compositions of Waeschenbach as separator layers in Ginn would have been obvious to one of ordinary skill in the art who desired to make a container capable of releasing different detergent compositions during the appropriate dishwashing cycles.

26. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed the compositions recited by Waeschenbach between the layers of different washing compositions recited by Ginn in order to obtain the advantage of not being restricted to time-dependent dissolution of the cleaning compound as in Ginn. This combination would have produced the invention as recited in claims 13-18.

27. Regarding claim 31: Utilizing the compounds recited by Waeschenbach for the invention of Ginn would have allowed much more flexibility in how the cleaning compounds could be disposed in the container recited by Ginn since the compounds of Waeschenbach are selectively soluble and not dependent on time for solubility. As such, it would have been unnecessary to dispose the compositions in the stacked manner recited by Ginn. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have instead provided a wall down the middle of the container and disposed the wash compounds side by side as claimed in claim 31, since this configuration would have the obvious advantage of being able to fill the container with both wash compounds simultaneously thereby shortening the time of production.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michele L. Jacobson
Examiner /M. J./
Art Unit 1794

/Carol Chaney/
Supervisory Patent Examiner, Art Unit 1794